

New "HT" and "HTultra" glasses: Optical glasses with Ultra High Transmittance

Product information

As part of its extensive portfolio of optical glass types, SCHOTT has been offering glass variants with superior transmittance. Recently SCHOTT has developed additional variants with significantly improved transmittance which are now all being identified with the suffix "HT" or "HTultra". These glasses are especially suitable for digital projection and high end optical systems. These new glass types N-BK7HT, N-SK2HT, the high refractive index glasses N-LASF9HT and N-LASF45HT, as well as N-SF57HTultra and N-SF6HTultra also show superior transmittance values than the respective glass types offered by other suppliers.



New HT glasses guarantee outstanding color brilliance

Advantages

- Improved transmittance especially at the blue violet spectral range → improved color contribution, better mesopic vision
- Reduced "thermal lensing effect" due to higher transmittance → reduced energy absorption, improved image quality
- Faster polymerization of UV active glues due to better UV transmittance → time savings while processing

Applications

- Prisms e.g. for 3D digital cinema projection, digital cameras, binoculars
- Lenses or optical components for High End HDTV and DSLR

Supply Forms

- components (polished prisms, lenses)
- pressings
- strips and blocks

Glass	n_d	v_d	τ_i^{**}	Color code
N-BK7HT	1.51680	64.17	0.998	33/29
N-SK2HT	1.60738	56.65	0.996	34/30
F2HT	1.62004	36.37	0.996	35/32
N-LASF45HT	1.80107	34.97	0.886	43/35
SF6HT	1.80518	25.43	0.941	41/36
N-SF6HTultra	1.80518	25.36	0.887	43/37*
N-SF6HT	1.80518	25.36	0.877	44/37
SF57HTultra	1.84666	23.83	0.924	39/36*
N-SF57HTultra	1.84666	23.78	0.830	40/37*
N-SF57HT	1.84666	23.78	0.793	41/37*
N-LASF9HT	1.85025	32.17	0.843	40/36*

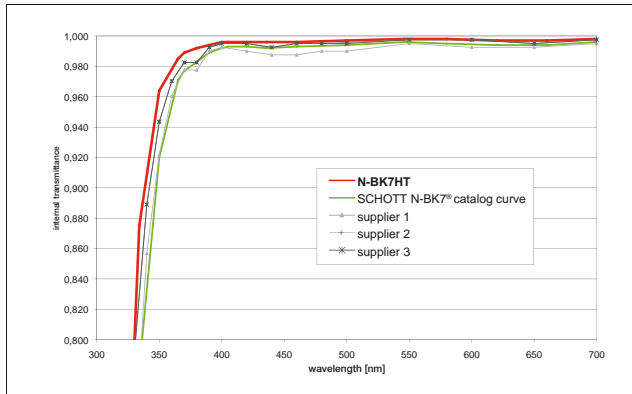
■ additional variants

* wavelength for transmittance 0.7 and 0.05

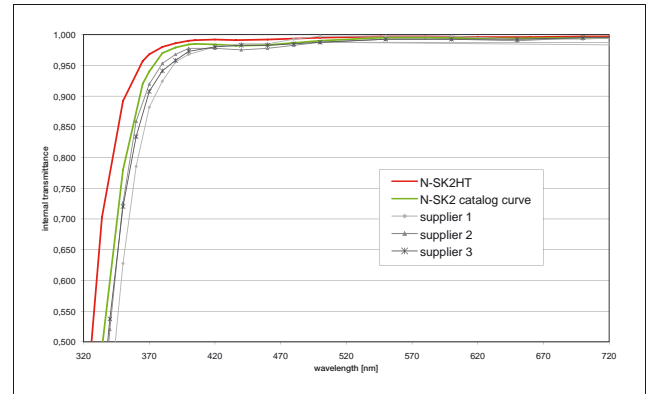
** 10 mm thickness, 400 nm wavelength

Overview of high transmittance glasses***

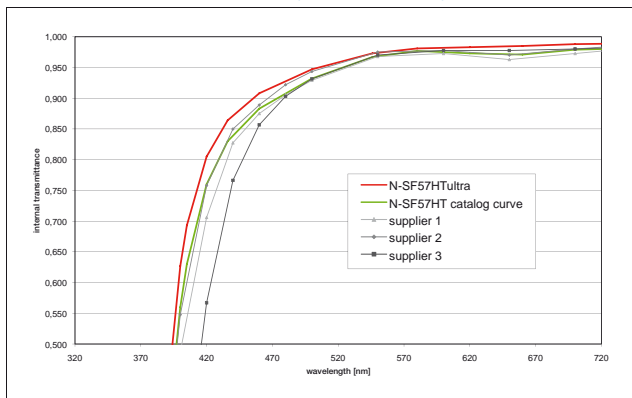
N-BK7HT, $n_d = 1.51680$, $v_d = 64.17$



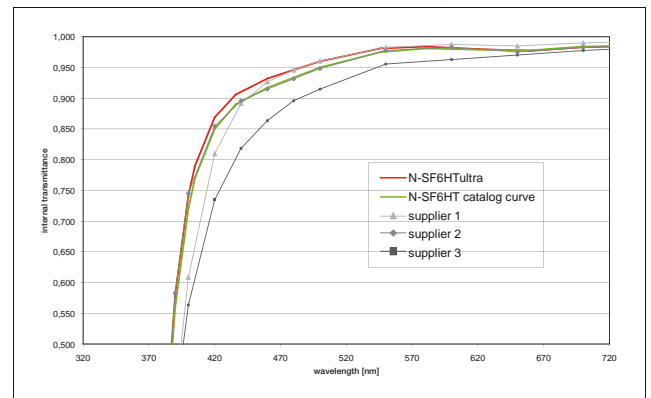
N-SK2HT, $n_d = 1.80107$, $v_d = 34.97$



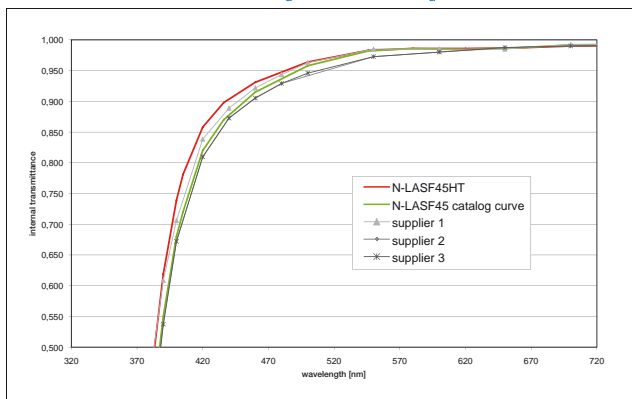
N-SF57HTultra, $n_d = 1.84666$, $v_d = 23.78$



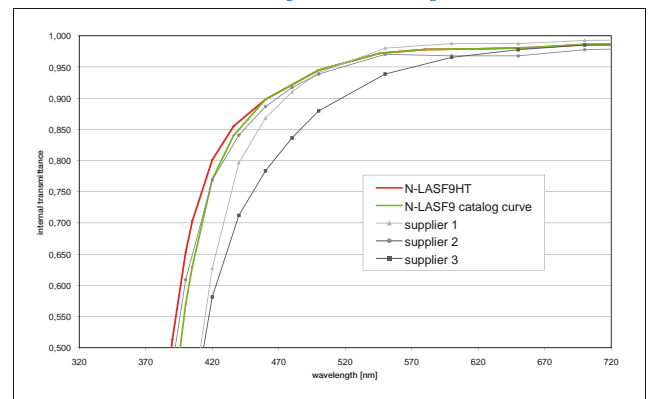
N-SF6HTultra, $n_d = 1.80518$, $v_d = 25.36$



N-LASF45HT, $n_d = 1.80107$, $v_d = 34.97$



N-LASF9HT, $n_d = 1.85025$, $v_d = 32.17$



*** whereas the internal transmittance curves of standard optical glasses in the datasheet comprise median values for the glass types, "HT" and "HTultra" glass internal transmittance curves are guaranteed minimum values for internal transmittance in the visible spectrum. Shown graphics are valid for 25 mm sample thickness.

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